

Date: Fri, 11 Mar 94 07:01:21 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V94 #276  
To: Info-Hams

Info-Hams Digest                        Fri, 11 Mar 94                        Volume 94 : Issue 276

Today's Topics:

1x1 Callsigns?  
Alliance 5-wire Rotor Motor Questions (2 msgs)  
Best cars for mobile HF/VHF?? (2 msgs)  
Former Yugoslav Broadcast Station Freqs  
Good car for HF/VHF mobile??  
Grounding and lightning protection  
Heath 2036 manual  
Help with FTPing!  
IPS Daily Report 10 03 94  
personal communication Australia <-> USA  
Why no 10 meter activity??

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 11 Mar 1994 14:05:04 GMT  
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!europa.eng.gtefsd.com!  
news.umbc.edu!haven.umd.edu!cville-srv.wam.umd.edu!ham@network.ucsd.edu  
Subject: 1x1 Callsigns?  
To: info-hams@ucsd.edu

>Actually, international agreements and regulations do not  
>allow a 1X1 format; 1X2, 2X1, 2X2, 1X3 or 2X3 only,  
>JY1 notwithstanding. :-).  
>  
>73 from ARRL HQ, Ed

Ed, how do you account for the rash of contest stations with calls like "Radio Six Lima," or "Romeo Three Whiskey?" There have been a few of these around lately.

As for the request for a call like A4L, this can't be done because the US doesn't have the rights to these calls. I believe A1, A4, A5, and A6 are all allocated (can't remember exactly who, though). The US has allocations to "AA-AL."

Ever wonder why, when you take an upgrade exam, if you get

General = /AG  
Advanced = /AA  
Extra = /AE  
BUT  
Technician = /KT?

It's because "AT" is not a valid US prefix.

Scott NF3I

--  
73, ----- The  
  \ / Long Original  
Scott Rosenfeld Amateur Radio NF3I Burtonsville, MD | Live \$5.00  
WAC-CW/SSB WAS DXCC - 125 QSLed on dipoles -----| Dipoles! Antenna!

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Date: 11 Mar 1994 11:40:40 GMT  
From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!math.ohio-state.edu!magnus.acs.ohio-state.edu!slip1-6.acs.ohio-state.edu!user@network.ucsd.edu  
Subject: Alliance 5-wire Rotor Motor Questions  
To: info-hams@ucsd.edu

In article <1994Mar10.145901.65354@yuma>, galen@picea.CFNR.ColoState.EDU (Galen Watts) wrote:

> I've acquired an Alliance rotor motor with no control box. The rotor  
> takes 5 wires, has the rotating mast thru the body and the mast top clamp  
> on the side of the case. I've been told this style is often used as an  
> altitude rotor on Satellite setups.  
> Questions:  
> 1. What voltage does it take to turn the motor? AC or DC?  
> 2. What are the pinouts for the five wires?  
> 3. What is the model number or other ID's? (nothing on the case but Alliance).  
>  
> I can open it up to get the pinouts, but I don't want to burn it out with

> the wrong voltage etc.  
> I'm planning to use it to turn small VHF/UHF antennas.  
> Any positive responses are greatly appreciated!!!!  
> Galen, KF0YJ

You may not have what you think you have. The rotator that is used for elevation is an Alliance U-110. It has 4 wires. The ARRL Handbook has info in Ch 23 on how to make a control box for it. The U-110 is a worm drive rotator. I am told there is another similar looking rotator the U-105 which is not worm drive and is therefore not suitable for side mount elevation operation. As the Handbook article shows making a control box to run the motor is easy. But you have to come up with your own position indication method. The original control box, if you had it, is not too useful. It is a click thing with fairly coarse control, i.e. degrees per click. But lots of folks use it.

I am looking into a new rotator that is available in discount stores around the country for about \$50. It is the Orbit 360 by the Intercept Corp, a division of Gemini Industries. It has a nice control box, automatic position control (you move the knob and it goes to the new position), and the mast can go all the way through as you need for elevation use. The only thing is the type of internal construction - is it worm drive. A couple of us are looking into it but if you want to do it Gemini is listed as being in Clifton, NJ.

All of these less expensive rotators used for elevation are short on lifting ability so your antennas must be pretty carefully balanced.

A pet peeve of mine in amateur jargon is the use of the word rotor. A type of variable capacitor has a rotor (and a stator). A motor has a stator. But we turn antennas with a rotator.

73,  
Ron w8gus.

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Date: Thu, 10 Mar 1994 17:07:20 -0500  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!math.ohio-state.edu!  
news.acns.nwu.edu!ftpbox!mothost!lmpsbbbs!NewsWatcher!user@network.ucsd.edu  
Subject: Alliance 5-wire Rotor Motor Questions  
To: info-hams@ucsd.edu

In article <1994Mar10.145901.65354@yuma>, galen@picea.CFNR.ColoState.EDU  
(Galen Watts) wrote:

> I've acquired an Alliance rotor motor with no control box. The rotor  
> takes 5 wires, has the rotating mast thru the body and the mast top clamp  
> on the side of the case. I've been told this style is often used as an  
> altitude rotor on Satellite setups.

> Questions:

> 1. What voltage does it take to turn the motor? AC or DC?

24 VAC, about 40 watt xfmr (to be safe for more than 2% duty cycle). You drive one motor lead directly against ground and the other through a capacitor of about 10 mfd at 200 VAC.

> 2. WHat are the pinouts for the five wires?

If this is the T45, the center is ground, the outer two are the motor coils, and the remaining two are the direction sensing potentiometer. If not, watch for smoke!

> 3. What is the model number or other ID's? (nothing on the case but Alliance).

>

> I can open it up to get the pinouts, but I don't want to burn it out with  
> the wrong voltage etc.

> I'm planning to use it to turn small VHF/UHF antennas.

> Any positive responses are greatly appreciated!!!!

> Galen, KF0YJ

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Karl Beckman, P.E. < STUPIDITY is an elemental force for which >  
Motorola Comm - Fixed Data < no earthquake is a match. -- Karl Kraus >

Some of the opinions expressed above aren't even claimed by the author!

Amateur radio WA8NVW @ K8MR.NEOH.USA.NA NavyMARS VBH @ NOGBN.NOASI

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Date: Fri, 11 Mar 1994 12:19:49 GMT  
From: ihnp4.ucsd.edu!agate!usenet.ins.cwru.edu!news.csuohio.edu!  
sww@network.ucsd.edu  
Subject: Best cars for mobile HF/VHF??  
To: info-hams@ucsd.edu

Winnebago Industries makes a bunch of very fine vehicles for mobile HF.  
You don't even have to worry about missing your turn off!

73,  
Steve N08M.#NEOH.OH.USA.NA  
ag807@Cleveland.freenet.edu

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Date: Fri, 11 Mar 1994 13:56:13 GMT  
From: ihnp4.ucsd.edu!swrinde!gatech!wa4mei!ke4zv!gary@network.ucsd.edu  
Subject: Best cars for mobile HF/VHF??  
To: info-hams@ucsd.edu

In article <2lor4d\$krj@brahms.udel.edu> penneys@brahms.udel.edu (Robert Penneys) writes:

>I need to replace a car and want one which 100 watts or so of HF and 50 watts  
>or so of 2 meters or 440 will not interfere with the electronics af the  
>vehicle. Nor do I want ignition or other noise beyond the bare minimum.  
>  
>In consideration are four door sedans from the size of a Corolla up to that  
>of a Taurus. or perhaps a minivan or small pickup. Replacing a Ford  
>Aerostar.  
>  
>Will listen to all viewpoints. Tnx a million. Bob

Look at what the cops are driving. Ford Crown Victorias seem popular with them, as do Chevy Caprices. Order your's with the same fleet codes that they use and you'll have a car that works well with radios. (It'll also have the heavy duty electrical system, cooling system, and suspension of a cop car.) Get the same color scheme that they use for their unmarked cars too, that way the antennas won't draw suspicion. (And you may avoid some tickets.)

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

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Date: 11 Mar 1994 12:33:38 GMT  
From: ihnp4.ucsd.edu!swrinde!cs.utexas.edu!howland.reston.ans.net!pipex!bnr.co.uk!  
zaphod.axion.bt.co.uk!lynx!jmitchen@network.ucsd.edu  
Subject: Former Yugoslav Broadcast Station Freqs  
To: info-hams@ucsd.edu

A friend of mine from the former Yugoslavia wants to be able to listen to some "home" language and music via Short Wave Broadcast stations from that part of the world in the UK. Does anyone have any up-to-date SW frequencies for such stations please?

Please email any info: (we don't read all these groups)

in English to: jmitchen@axion.bt.co.uk  
or in other languages to: rmilovan@axion.bt.co.uk

Thanks,

Jonathan.

p.s. Apologies for the cross-posting.

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Date: 11 Mar 1994 07:06:39 -0500  
From: ihnp4.ucsd.edu!swrinde!gatech!udel!news.udel.edu!brahms.udel.edu!not-for-mail@network.ucsd.edu  
Subject: Good car for HF/VHF mobile??  
To: info-hams@ucsd.edu

I need to get another car and want one which will be radio-friendly for 100 watts or so of HF, mostly CW, and 50 or so of 2 meters and 440.

Criteria are:

No interference to electronics of car by RF

Minimal noise generated by car

Reasonable space for rigs

Reasonable mounting of antennas

Etc.

Car will probably be four door sedan in size range from Corolla to Taurus.

All comments welcomed. Thanks. Bob

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Bob Penneys, WN3K Frankford Radio Club Internet: penneys@pecan.cns.udel.edu  
Work: Ham Radio Outlet (Delaware) (800) 644-4476; fax (302) 322-8808  
Mail at home: 12 East Mill Station Drive Newark, DE 19711 USA

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Date: Fri, 11 Mar 1994 14:13:56 GMT  
From: ihnp4.ucsd.edu!swrinde!emory!wa4mei!ke4zv!gary@network.ucsd.edu  
Subject: Grounding and lightning protection  
To: info-hams@ucsd.edu

In article <2lo2ck\$pod@dartvax.dartmouth.edu> Kenneth.E.Harker@Dartmouth.Edu (Kenneth E. Harker) writes:

> I am going to be installing a VHF/UHF vertical base station  
>antenna on the roof of my fraternity house in the next week or two.  
>Before I do, however, I am really interested in learning about what  
>steps I can take to help protect the house against lightning. The  
>antenna is about 7 feet tall and the tip of the antenna will be about  
>40' off the ground.

> Is there a book or other source of information that someone could  
>recommend to me? While I'm not terribly worried about this (there are  
>plenty of other structures nearby that are a lot taller than 40') I  
>would like to take whatever reasonable precautions I can.

> Thanks.

Here's something I posted a while back on this subject that may be helpful.

In article <9209291528.AA03542@PCS.CNU.EDU> doughty@PCS.CNU.EDU (David Doughty) writes:

>I have recently come into posession of a roof mounted tower (about 10 ft.  
>- has thrust bearing, uses guy wires attached to roof, etc.) and want to  
>mount it on the roof of my two story house. My problem is that the tower  
>will be one of the highest structures around, and is almost certain to be  
>struck by lightning sooner or later (at least I want to be prepared).  
>I would like to know the best way to ground the tower.

>  
>In the ARRL handbook (and also the NEC - National Electrical Code) there  
>is a lot of discussion about protecting the feedline by grounding the shield  
>of the coax, using arrestors, switching them to ground when not in use etc.  
>There is also some discussion of grounding a REAL tower. But I haven't been  
>able to find much on roof towers. What I want to be sure (or at least as  
>sure as possible) of is that if the antenna/tower gets hit, the lightning  
>strike doesn't arc through the house, etc.

>  
>Some specific questions I have are:

>  
>1. What size of ground lead(s) to use for the tower? I realize that  
>bigger is better but the cost of enormous cable is prohibitive. What  
>is reasonable if you EXPECT or PLAN on a direct hit?

The NEC says number 8 solid is the minimum size for the downlead of a lightning rod. Consider this the smallest wire you can use. Since lightning is a pulse that has RF components through VHF, skin effect matters. A better downlead is 5 inch wide copper flashing run as straight as possible to ground, but in no case having a 90 degree or sharper bend in the path.

>2. How many?

If you use the correct size, and do the bonding correctly, one is sufficient. If you aren't going to be able to inspect the run frequently, you might consider paralleling a number 8 solid wire with the 5 inch strap so that if corrosion opens one connection, you will still have a better path to ground than through your roof.

>3. What paths do I run them? The obvious answer would be the shortest, except that the shortest path is on the opposite side of the house from the shack and the feedlines. Would the resulting 'cage' effect be good or bad?

Normally, you want the shortest and \*straightest\* path to ground. However, ground loops can be disasterous. Make up your mind to establish a single ground point somewhere on your property and connect all ground runs to this one point. Make sure the utility grounds are also bonded to this point. Don't ever depend on earth conductivity to close a ground circuit and don't ever use a feedline shield as a ground conductor.

It's ok to have multiple grounds, but they must tie to the single point ground via low inductance, high conductivity cabling in a \*star\* configuration, not in a daisy chain. Daisy chaining grounds is a recipe for disaster.

Setting up a ground cage is an extreme measure of protection. To do it right is not simple. Doing it wrong can be dangerous. If you can't analyse all the current paths properly for ground loop effects, don't do it.

Bring \*all\* cables into your shack via a "ground window", that includes power and telephone. A ground window is a single small area, usually a rack panel, copper plate, or the like, that each wire is attached to via an arrestor of the proper type for that kind of cable. The ground window is then connected to the master single point ground by a heavy strap or cable. This assures you that all cabling entering the shack will be at near the same potential during a strike (plus or minus the breakdown voltage of the arrestors). With quality arrestors, you shouldn't ever have a voltage differential of more than 200-400 volts across your equipment. Most equipment will tolerate this kind of voltage for the few milliseconds required. Note that your entire shack may be elevated to several thousand volts above ground due to the resistive drop of your single ground lead, but as long as \*every\* part of the shack is elevated the same amount, no net current can flow.

>3. Do I need to stand them off from the roof?

It's generally not necessary, but it won't hurt. Remember that a direct lightning stroke will typically flow 4,000 amperes or more for several milliseconds. The wire can get quite hot. I've seen number 12 solid \*vaporized\* by a lightning stroke. That's why you want to use at least number 8 wire or heavy strap.

>4. Do I need to attach to each leg of the tower?

That depends on the tower construction. If the tower is welded, connecting to one leg is sufficient. If it is bolted or riveted, inspect it carefully for loose connections and use bond straps to make it a single conductor.

>5. What about the guy wires?

Generally, \*don't\* ground the guy wires. If the tower is going to carry an HF antenna, you'll likely want to break guys with insulators anyway to avoid pattern disturbances.

>6. Anything else I should know?

A single ground rod is not an effective ground in most soils. Use at least three no closer than 4 feet apart in a triangular arrangement. Bond them all together with your heavy strap. If you have \*metal\* underground water piping, tie to that too. Remember, \*star\* configuration. No ground should connect to another except at the \*single\* point connection. And no downlead should connect anywhere but at the single point.

Always \*mechanically\* bond ground wires and straps. Don't depend on \*any\* soldered connection. Solder \*will\* melt when lightning strikes. The NEC says there should be \*no\* splices in a ground run. That's perhaps a bit extreme. A \*good\* mechanical and electrical splice should be ok, but rather safe than have the insurance company void your claim.

>I know that there's no guarantee when it comes to lightning strikes,  
>but it is my family in the house and I want to be sure I have done  
>everything I can to protect them.

That's a good attitude Dave. Lightning kills more people each year than any other weather related thing. Besides, the better ground field can help your HF signals \*every\* day.

Gary KE4ZV

--

Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary  
Destructive Testing Systems | we break it. | uunet!rsiatl!ke4zv!gary

534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary  
Lawrenceville, GA 30244 |

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Date: 11 Mar 94 13:59:49 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Heath 2036 manual  
To: info-hams@ucsd.edu

Greetings to all,

I have a friend in need of a manual for a Heathkit 2036 radio. He made the fatal mistake of lending his out to another, and it came up missing.

Any help would be appreciated.

73,

Ty N9UIY  
a15tah%andv06@gmr.com

The opinions are mine and not of my employer.

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Date: Fri, 11 Mar 1994 12:06:24 GMT  
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!torn!newshub.ccs.yorku.ca!  
apogee.ccs.yorku.ca!edleslie@network.ucsd.edu  
Subject: Help with FTPing!  
To: info-hams@ucsd.edu

COLERK%snypotvx.BITNET@CUNYVM.CUNY.EDU wrote:

: Greetings...you'll have to excuse my lack of knowledge when it comes to using  
: FTP procedures....haven't been at this long....using FTP I login to FUNE.FI,  
: no problem there...once I find a .ZIP file I want I ask it to GET the file...  
: again no problem, the program is sent to my local mainframe...I log off of the  
: FTP address and go to the local mainframe and ask to send...I receive the file  
: as a .ZIP but cannot UNZip it...I ALWAYS get "WARNING!" file fails CRC check or

Try using the command:

binary

at the remote end before you send. The file is being sent to your mainframe as text data (7-bit bytes) and you are losing the 8th bit.

73 de Ed VE3ZVZ  
P.S. I speak from experience :-)

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Date: Thu, 10 Mar 1994 23:35:11 GMT  
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!europa.eng.gtefsd.com!emory!  
swrinde!sgiblab!munnari.oz.au!newshost.anu.edu.au!sserve!usage!metro!ipso!  
rwc@network.ucsd.edu  
Subject: IPS Daily Report 10 03 94  
To: info-hams@ucsd.edu

IPS RADIO AND SPACE SERVICES AUSTRALIA  
Daily Solar And Geophysical Report  
Issued at 2330 UT 10 March 1994  
Summary for 10 March and Forecast up to 13 March  
IPS Warning 08 was issued on 09 Mar and is still current.

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#### 1A. SOLAR SUMMARY

Activity: very low

Flares: none.

Observed 10.7 cm flux/Equivalent Sunspot Number : 088/032

#### 1B. SOLAR FORECAST

	11 March	12 March	13 March
Activity	Very low	Very low	Very low
Fadeouts	None expected	None expected	None expected

Forecast 10.7 cm flux/Equivalent Sunspot Number : 090/034

#### 1C. SOLAR COMMENT

None.

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#### 2A. MAGNETIC SUMMARY

Geomagnetic field at Learmonth : active to minor storm

Estimated Indices : A	K	Observed A Index 9 March
Learmonth	25	3245 4444
Fredericksburg	29	33
Planetary	35	52

#### 2B. MAGNETIC FORECAST

DATE Ap CONDITIONS

11 Mar 37 Active to minor storm.  
12 Mar 30 Active.  
13 Mar 25 Active.

2C. MAGNETIC COMMENT

None.

3A. GLOBAL HF PROPAGATION SUMMARY  
LATITUDE BAND

DATE	LOW	MIDDLE	HIGH
10 Mar	normal	normal	fair

PCA Event : None.

3B. GLOBAL HF PROPAGATION FORECAST  
LATITUDE BAND

DATE	LOW	MIDDLE	HIGH
11 Mar	poor	poor	poor
12 Mar	fair	poor	poor
13 Mar	fair	poor	poor

3C. GLOBAL HF PROPAGATION COMMENT

NONE.

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4A. AUSTRALIAN REGION IONOSPHERIC SUMMARY

MUFs at Sydney were 15 to 40% below predicted monthly values

T index: -8

4B. AUSTRALIAN REGION IONOSPHERIC FORECAST

DATE	T-index	MUFs
------	---------	------

11 Mar	0	20 to 30% below predicted monthly values.
12 Mar	5	About 20% below predicted monthly values.
13 Mar	5	About 15% below predicted monthly values.

Predicted Monthly T Index for March is 40.

4C. AUSTRALIAN REGION COMMENT

None.

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IPS Regional Warning Centre, Sydney  
email: rwc@ips.oz.au  
tel: +61 2 4148329  
fax: +61 2 4148331

|IPS Radio and Space Services  
|PO Box 5606  
|West Chatswood NSW 2057  
|AUSTRALIA

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Date: Fri, 11 Mar 1994 07:28:10 GMT

From: ihnp4.ucsd.edu!munnari.oz.au!newhost.anu.edu.au!sserve!usage!metro!ipso!

fawlty!steve@network.ucsd.edu  
Subject: personal communication Australia <-> USA  
To: info-hams@ucsd.edu

In article <1994Feb21.104420.14516@mel.dit.csiro.au>

Simon.McClenahan@mel.dit.CSIRO.AU writes:

>  
> Is it possible at all for my fiancee and I to purchase some  
>radio equipment and talk to each other? The long distance telephone  
>bills are a killer, so I think a couple of thousand dollars worth of  
>radio equipment would be a good investment.

>

Try buying a fax/phone, I seen one available for \$500, it has an auto  
switch to detect an incoming fax call, othewise it is a phone, you  
can send a page of text in less than 30 seconds,

I think it was a Panansonic or similiar from Harvey Norman Discounts,  
no doubt, your fiance could probably find the equivalent in the USA  
and probably for less,

its alot easier and cheaper, than trying to sit for radio exams and  
purchasing a suitable transceiver and antennas will cost you 2-3 thousand  
dollars for a station here.

A telephone/fax will also avoid the time differences between USA and Aust.  
so you dont have to be home at the same time to send/recv a fax.

steve

--  
Steven Blanche, Tower Technology	email : steve@fawlty.towers.oz.au
vk2kfv%vk2kfv@vk2xsb.nsw.aus.oc	wk phone : +612-427-2999
vk2kfv.ampr.org (4800@144.800)	wk fax : +612-427-7072

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Date: Fri, 11 Mar 1994 10:46:46 GMT  
From: library.ucla.edu!europa.eng.gtefsd.com!howland.reston.ans.net!pipex!sun!ic!  
EU.net!relay.puug.pt!dec4pt.puug.pt!news.inesc.pt!animal.inescn.pt!  
ciup2.ncc.up.pt!news.ci.@@ihnp4.ucsd.edu  
Subject: Why no 10 meter activity??  
To: info-hams@ucsd.edu

PaulG105 (paulg105@aol.com) wrote:

: Why is there no 10 meter activity?? Is it because of the band openings? If  
: so, how do you know when the openings are good?? 10 meters seems to have  
: become or is a dead band.  
: Paul Gaspari

The big problem is that the Sunspot number is very low and its getting worse for this reason the higher bands on Shortwave are almost dead. Sometimes there are a few openings but to know when they are and for which location you have to know the solar flux or sunspot number for the exact day. You can get this info here on INTERNET or listening to WWV time signal at minute 18. There's also lots of software to make this predictions , they are MINIPROP ...  
I hope you have understood.

10meters one of my favorite bands....

By the way we are on the desceding cycle ,in some years the propagation will get better.

73's from CT1ENQ (also CT5EPG(jota))

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-----|-----|  
| Jose' Miguel M.B.Fonte | Universidade de Aveiro - PORTUGAL |  
| | Departamento de Electronica e Telecom. |  
| E-mail : etjfonte@ci.ua.pt |-----|  
| | Ham callsign : CT1ENQ "always QRV" |  
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End of Info-Hams Digest V94 #276

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